



New Solar Homes Partnership Program Overview

New Solar Homes Partnership Training Workshop
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Purpose

- Provide assistance to all parties participating in the NSHP program
 - Program Eligibility
 - Application Process
 - Tools and Resources



Purpose

- Any comments or suggestions on improving the NSHP program can be sent to the California Energy Commission's Renewable Energy Office



California Solar Initiative

CPUC's
California Solar
Initiative

1,940 MW

\$2.16 B

**CEC's New
Solar Homes
Partnership**

400 MW

\$400 M

Publicly-Owned
Utility Solar
Programs

700 MW

\$784 M



Program Goals

- Establish a self-sufficient solar industry where solar energy systems are a mainstream viable option for homes by 2016
- Achieve 400 megawatts of installed solar electric capacity in California by the end of 2016
- Place solar energy systems on 50% of new homes by end of program



Program Eligibility

- Project located in one of four investor-owned electric service territories (PG&E, SCE, SDG&E, BVES)
- New residential construction project
 - Single-family, multifamily, mixed-use buildings where 10 percent or less of the building space is non-residential, common areas of housing developments
 - Project meets a minimum of 15 percent beyond current Building Energy Efficiency Standards (Title 24)



Program Eligibility

- Solar energy system will be at least 1 kW AC or larger and interconnected with the utility grid.
- The electricity from the system will offset the end-use customer's electric load.
- The system will be composed of new certified components from the Energy Commission's Lists of Eligible Equipment
- System components will be protected against breakdown, output degradation and defective workmanship for 10 years.



Program Eligibility

- Solar retailers and installers must be registered on the Go Solar California website.
- Solar installers must have an active California State A, B, C-10 or C-46 license. Systems can also be self-installed.
- Systems and energy efficiency measures are third-party verified by HERS raters.



Incentive Structure

- One-time, upfront incentive
- Incentive decline as megawatt targets are achieved
- Incentives decline to zero at the end of the program
- For the most up-to-date information on incentive levels, visit:

<https://www.newsolarhomes.org/RebateLevels.aspx>



Expected Performance-Based Incentive

- The incentive amount is calculated using the CEC-PV Calculator
 - CEC-PV Calculator can be downloaded at:
<http://www.gosolarcalifornia.ca.gov/nshpcalculator/index.html>
- The incentive amount is based on a calculation which compares the expected performance of the proposed system to a reference system



Incentive Levels

Solar As Standard Feature Incentive - \$2.60/watt

- Projects with six or more units where solar is installed on 50 percent or more of the units.
- 36-month reservation period

Base Incentive - \$2.50/watt

- Custom homes
- Small developments
- Developments offering solar as an option*
- Developments where solar is installed on less than 50 percent of the units
- Common areas
- 18-month reservation period

*Solar as an Option projects will receive a 36-month reservation period.



Incentive Levels - Affordable Housing

- \$3.50/watt for residential unit installations
- \$3.30/watt for common area installations
- 36-month reservation period
- Incentives decline over time as affordable housing megawatt targets are achieved (Decline schedule is separate from market-rate NSHP program)
- No specific set-aside of funding for affordable housing
- Additional requirements must be met in order to receive the higher incentive levels.



Applicability of Guidebook Changes to Existing Applications

- Approved applications as of the Guidebook adoption date, follow the previous editions of the Guidebook, but allowed to abide by the third edition in the following ways:
 - Enter into lease/PPA arrangements in accordance to eligibility in Guidebook
 - Increase system size, but incentive capped at 7.5 kW
 - Not submit final invoice, interconnection letter, final solar permit signoff, HERS documents



Applicability of Guidebook Changes to Existing Applications

- Applications that were submitted but not approved at the time of the Guidebook adoption, can abide by either the second or the third edition of the Guidebook
 - Written notification must be submitted.
- New applications submitted after the Guidebook adoption will abide by the third edition.



Leased Systems

NSHP Guidebook, 2nd Ed.

- Silent on the issue of system ownership

NSHP Guidebook, 3rd Ed.

- At a minimum, ten-year leased systems and power purchase agreements
- Lessor required to report the status of the system for the first five years
- If agreement is terminated AND system is removed within the first five years, then penalties for early removal



Solar as an Option

NSHP Guidebook, 2nd Ed.

- Only encumbers funds for 10 percent of a housing development
- Requires specific solar and energy efficiency information at reservation time
- 18-month reservation period

NSHP Guidebook, 3rd Ed.

- Allow up to 50 percent of a housing development to participate
- Require specific solar and energy efficiency information once home is identified
- 36-month reservation period



Housing Phases

NSHP Guidebook, 2nd Ed.

- Only housing developments that commit 50 percent or more of the homes to solar can receive the solar-as-standard incentive.

NSHP Guidebook, 3rd Ed.

- Allow phases of 6 or more homes that commit 50 percent or more of the homes to solar to receive the solar-as-standard incentive.



System Upgrades

NSHP Guidebook, 2nd Ed.

- The incremental increase in system size is calculated at the incentive level in effect.

NSHP Guidebook, 3rd Ed.

- The incremental increase in system size is calculated at the incentive level in effect at the time of reservation approval.



Incentive Cap

NSHP Guidebook, 2nd Ed.

- All system sizes are eligible for the incentive
- Systems larger than 5 kW must provide a system size justification letter or load calculations explaining why the project requires a large system.

NSHP Guidebook, 3rd Ed.

- Incentives are for the first 7.5 kW AC of a system installed on a residential dwelling unit
- No system size justification required



California Flexible Installation

NSHP Guidebook, 2nd Ed.

- To use the CFI, tilt ranges from 1:12 to 7:12 (i.e., 4.8 to 30.3 degrees)

NSHP Guidebook, 3rd Ed.

- Include flat installations in tilt range (0 degrees)
- CFI can only be used for new residential developments.
- CECPV Calculator Version 2.4



Energy Efficiency

NSHP Guidebook, 2nd Ed.

2005 Building Energy Efficiency Standards Tier levels

- Tier 1: minimum 15 percent beyond Standard for combined space heating, cooling and water heating
- Tier 2: minimum 35 percent beyond Standard for combined space heating, cooling and water heating and 40 percent for space cooling

NSHP Guidebook, 3rd Ed.

Includes specifics on 2008 Building Energy Efficiency Tier levels

- Tier 1: minimum 15 percent beyond Standard for combined space heating, cooling and water heating
- Tier 2: minimum 30 percent beyond Standard for combined space heating, cooling and water heating and 30 percent for space cooling

2005 still eligible, if applicable



Affordable Housing

NSHP Guidebook, 2nd Ed.

- Only new affordable housing permitted in program
- Projects must be affordable for a minimum of 45 years

NSHP Guidebook, 3rd Ed.

- Projects with occupancy permits less than two years old permitted in program
- Projects must be affordable for a minimum of 10 years



Affordable Housing

NSHP Guidebook, 2nd Ed.

- Silent on virtual net metering
- Energy efficiency documentation required at reservation time

NSHP Guidebook, 3rd Ed.

- Projects utilizing virtual net metering are eligible
- Allow TCAC applicants up to 60 days after funding approval to submit energy efficiency documentation



Retailer Registration

NSHP Guidebook, 2nd Ed.

- Retailers register with the Energy Commission every year by March 31 via NSHP-4 form.

NSHP Guidebook, 3rd Ed.

- Retailers AND installers self-register with the Energy Commission via Go Solar California website.



New to Third Edition

- Projects with valid, unexpired reservations as of January 1, 2010 are granted automatic extensions.
- Applicant can designate his administrative rights to a representative.



Clarifications

- A residential building is considered “new” if the entire building structure is subject to current Title 24 Standards and does not yet have a certificate of occupancy.
- Solar permit should be pulled prior to the issuance of the certificate of occupancy, but no later than 180 days after.
- All measures installed to meet the minimum energy efficiency requirements must be inspected and documented via CF-4R-NSHP form.



Advantages of 2nd and 3rd Editions

NSHP Guidebook, 2nd Ed.

- All system sizes are eligible for the incentive

NSHP Guidebook, 3rd Ed.

- Apply for a larger number of homes under Solar as Option and receive longer reservation period
- Apply as a housing phase
- Receive the incremental system size increase at incentive level approved at reservation



NSHP Resources

- Go Solar California
 - <http://www.gosolarcalifornia.org/>
 - CEC-PV Calculator
 - Solar Retailer and Installer Registration
 - Eligible Equipment Lists
 - Training Information
 - Program Administrator Contact Information
- NSHP Web Tool
 - <https://www.newsolarhomes.org>
 - Online Application Process
 - NSHP Trigger Tracker